



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

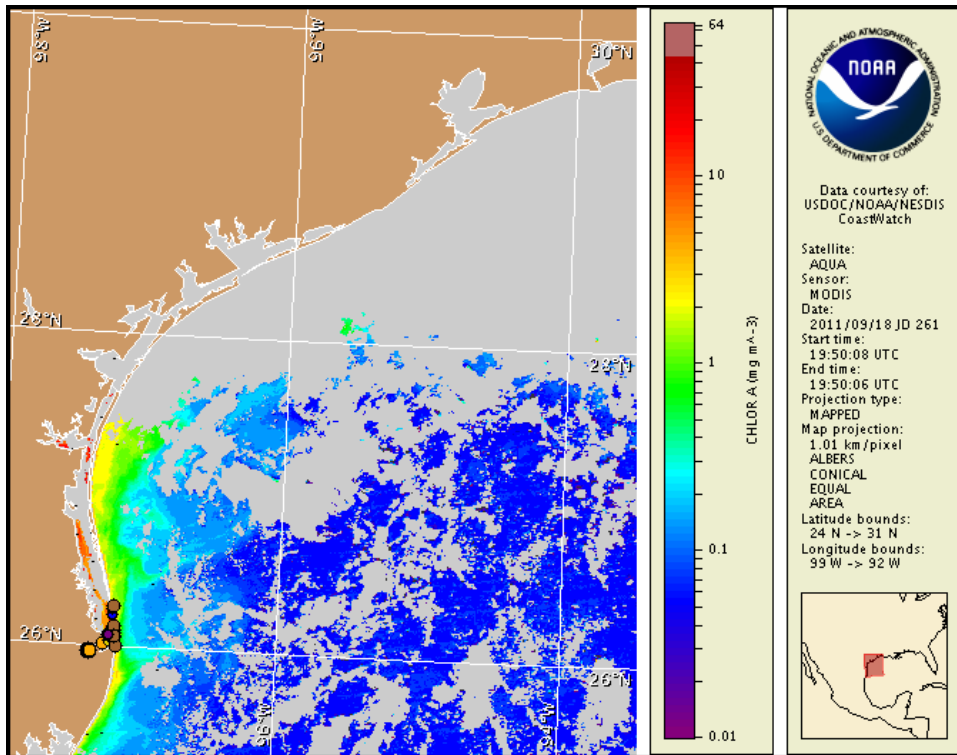
Monday, 19 September 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, September 15, 2011



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from September 9 to 18 shown as red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:
<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

A harmful algal bloom has been identified along the Texas coast in the South Padre Island and Brazos Island State Park regions, within the Brownsville Ship Channel area, and within the lower Laguna Madre. Patchy high impacts are possible within the Brownsville Ship Channel area today through Wednesday. Patchy moderate impacts are possible within the lower Laguna Madre region and along the coastal South Padre Island and Brazos Island State Park regions today through Wednesday. No impacts are expected elsewhere alongshore Texas today through Sunday, September 25. Reports of respiratory irritation and dead fish have been received from the Boca Chica Beach. Dead fish have also been reported in the lower Laguna Madre, South Bay, San Martin Lake, and along the southern end of South Padre Island.

Analysis

A harmful algal bloom has been identified along the Texas coast in the South Padre Island and Brazos Island State Park regions, within the Brownsville Ship Channel area, and within the lower Laguna Madre. Samples of *Karenia brevis* collected along the coast of South Padre Island ranged between 'very low a' and 'low b' concentrations, with 'very low a' to 'low a' concentrations identified in the Brazos Santiago Pass (9/15-18; TPWD). Additional coastal samples, collected from Boca Chica Beach, indicated 'low a' (9/18) and 'low b' (9/16) *K. brevis* concentrations (TPWD). Five *K. brevis* samples collected in the Brownsville Ship Channel near where a 'high' concentration was identified last week, ranged between 'low b' and 'medium' concentrations (9/15-16; TPWD). Several samples collected from the lower Laguna Madre and bay side of South Padre Island ranged between 'not present' and 'low a' concentrations of *K. brevis*. One sample collected from South Bay indicated *K. brevis* was 'not present' (9/16; TPWD). Over the weekend, dead fish and respiratory irritation were reported from Boca Chica Beach (9/19; TPWD). Dead fish were also reported along the southern end of South Padre Island beach near the end of Highway 100, in the lower Laguna Madre, in San Martin Lake, and in South Bay (9/16-19; TPWD). Onshore winds through Wednesday will increase the potential for respiratory impacts along the coast in the South Padre Island and Boca Chica regions and within the Brownsville Ship Channel area and lower Laguna Madre.

Recent MODIS imagery (9/18, shown left) is partially obscured by clouds from Sabine Pass to the Aransas Pass area. Patches of elevated chlorophyll (2-4 $\mu\text{g/L}$) are visible in the coastal region where the harmful algal bloom has been identified, and also stretching along- and offshore of the Texas coast from Aransas Pass to south of the Rio Grande area.

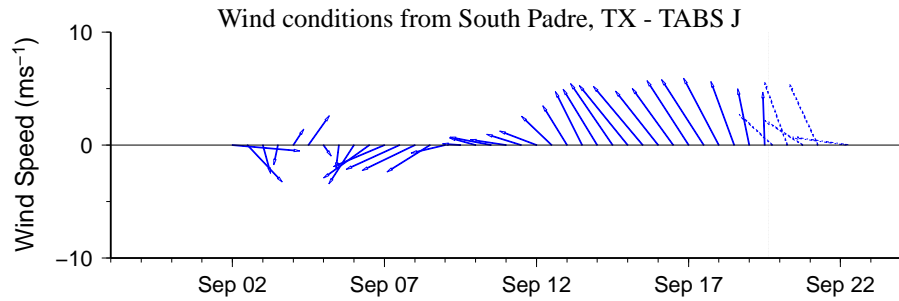
Forecast models indicate a maximum bloom transport between 20-40 km north along the coast from coastal sample locations in the Brazos Santiago Pass area, and a maximum transport of 10 km south along the coast from Port Aransas, from September 18 to 22.

Kavanaugh, Derner

Wind Analysis

South Padre: Southeast winds (10 kn, 5 m/s) today. East winds (10 kn) Tuesday through Wednesday. Northeast winds (10-15 kn, 5-8 m/s) Thursday through Friday.

Port Aransas: South winds (10-15 kn, 5-8 m/s) today becoming southeast winds (5-10 kn, 3-5 m/s) this evening. North winds (5-10 kn) late tonight becoming east winds (5-10 kn) Tuesday afternoon. Southeast winds (5-10 kn) Tuesday evening. East winds (5-10 kn) Wednesday. Northeast winds (10-15 kn) Thursday becoming east winds (5-10 kn) Friday.



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

